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10  
11 UNTIED STATES DISTRICT COURT  
12 NORTHERN DISTRICT OF CALIFORNIA

13 CV11 2203

14 Case No. \_\_\_\_\_

15 COMPLAINT FOR DECLARATORY  
16 AND INJUNCTIVE RELIEF

17 ALEC L., by and through his Guardian Ad  
Litem VICTORIA LOORZ;  
18 MADELEINE W., by and through her Guardian  
Ad Litem JANET WALLACE;  
GARRETT S., by and through his Guardian Ad  
Litem VALERIE SERRELS;  
GRANT S., by and through his Guardian Ad  
Litem VALERIE SERRELS;  
ZOE J., by and through her Guardian Ad Litem  
NINA GROVE;  
KIDS vs GLOBAL WARMING, a nonprofit;  
and,  
WILDEARTH GAURDIANS, a nonprofit

21 Plaintiffs,

22 vs.

23 LISA P. JACKSON, in her official capacity as  
Administrator of the UNITED STATES  
ENVIRONMENTAL PROTECTION  
24 AGENCY, a federal agency;  
KENNETH L. SALAZAR, in his official  
capacity as Secretary of the UNITED STATES  
DEPARTMENT OF INTERIOR, a federal  
agency;  
THOMAS J. VILSACK, in his official capacity  
as Secretary of the UNITED STATES  
DEPARTMENT OF AGRICULTURE, a  
federal agency;

29 RICHARD W. WIEKING  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

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GARY F. LOCKE, in his official capacity; as  
Secretary of the UNITED STATES  
2 DEPARTMENT OF COMMERCE, a federal  
agency;  
3 STEVEN CHU, in his official capacity as  
Secretary of the UNITED STATES  
4 DEPARTMENT OF ENERGY, a federal  
agency;  
5 ROBERT M. GATES, in his official capacity,  
as Secretary of the UNITED STATES  
6 DEPARTMENT OF DEFENSE, a federal  
agency;  
7

Defendants.

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1           “[T]he state has an interest independent of and behind the titles  
 2           of its citizens, in all the earth and air within its domain.”  
*State of Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237 (1907)

3           “The state can no more abdicate its trust over property in which  
 4           the whole people are interested... than it can abdicate its police  
 5           power in the administration of government.”  
*Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 453

## 6       I.     INTRODUCTION

7       1.     Earth’s climate is warming due to human-induced global energy imbalance.

8     Increasing temperatures are affecting our Nation’s water resources, causing more frequent heat  
 9     waves, increasing illness from insect-borne diseases, shortening our winter season, reducing  
 10    summer water flows, and increasing our irrigation needs. However, it is our children and our  
 11    children’s children who will face the full consequences of this climate crisis.

12    2.     There is longstanding, fundamental authority that the United States government  
 13    has a fiduciary duty to protect our natural resources and our human rights from threats, such as  
 14    effects of human-induced global energy imbalance. Our federal government must exercise the  
 15    highest duty of care when dealing with natural resources, such as atmosphere, that are necessarily  
 16    held in common for all. Applying basic trust principles, the United States government has an  
 17    affirmative fiduciary obligation to control atmospheric contamination that causes catastrophic and  
 18    irreparable damage to our lands, our businesses, our national security, and our health.

19    3.     The public welfare of our citizens is directly affected by the failure of our federal  
 20    government to confront this human-induced global energy imbalance. This Court should  
 21    determine the Public Trust Doctrine applies to the current climate crisis and issue appropriate  
 22    equitable relief. This action does not request this Court issue an order telling Congress or any  
 23    federal agency *how* to protect our natural resources, but rather issue an order requiring our federal  
 24    government to do its job.

25    4.     Plaintiffs include youth, representing the youngest living generation of  
 26    beneficiaries of the Public Trust. Plaintiffs have a profound interest in ensuring our climate  
 27    remains stable enough to ensure their rights to a livable future. A livable future includes the  
 28    opportunity to drink clean water, to grow food, to be free from imminent property damage caused

1 by extreme weather events, and to enjoy the abundant and rich biodiversity on this small planet.  
2 These youth Plaintiffs are not scientists or public policymakers, or even voters. Plaintiffs bring  
3 this action not to require this Court to force our federal government to adopt a particular treaty,  
4 economic theory, or political platform. Plaintiffs ask this Court to declare there is a human-  
5 induced global energy imbalance and require our federal government, as trustee, to present a plan  
6 to steward probable negative effects of the climate crisis in the future.

7       5.     The Public Trust Doctrine provides that our federal officials have a fiduciary duty  
8 to protect the atmosphere from the effects of human-induced global energy imbalance and to hold  
9 our country's vital natural resources in trust for present and future generations of citizens. Our  
10 federal government may not manage the trust resource in a way that substantially impairs the  
11 public interest in a healthy atmosphere. Our atmosphere contains a blanket of gases that have  
12 naturally allowed Earth's climate to remain in balance so our planet is not too hot or too cold,  
13 allowing human civilization and Earth's biodiversity to develop. Yet, when human activity  
14 disrupts that atmospheric equilibrium, jeopardizing the safe climate-zone, human life is placed in  
15 grave danger.

16       6.     Today we are confronted with an atmospheric emergency. Our atmosphere's  
17 necessary balance is close to a "tipping point" and increasingly getting worse, accelerated over  
18 the last thirty years to a climate warmer than has likely been experienced on Earth for 800,000  
19 years. This acceleration has been caused primarily by human activity and, if continued, will  
20 result in a changed world that threatens human existence as we know it. Americans and the world  
21 as a whole face impending climate catastrophe. If our federal government, as the trustee of the  
22 atmosphere, does not take immediate extraordinary action to protect, preserve, and restore the  
23 atmosphere back into balance, our children and our children's children will continue to suffer  
24 greater injury and damaging consequences.

25       7.     Science, not politics, should define the fiduciary obligation that our federal  
26 authorities must fulfill. Nature has its own laws and our atmosphere has its own energy balance.  
27 That balance has been seriously disrupted by massive amounts of carbon dioxide and heat-  
28 trapping greenhouse gases or "GHGs," which trap the sun's heat and prevent it from dissipating

1 into space. Determining how much carbon reduction is needed to timely return our atmosphere to  
2 equilibrium is a matter of science, not politics.

3       8. Human lives are already being lost because our federal government has failed to  
4 address destruction of our natural resources. Earth has already heated over pre-industrial  
5 temperatures. Rapid reduction of greenhouse gas emissions is required to preserve our planet.  
6 Our atmosphere must be returned to equilibrium of less than 350 parts per million ("ppm") carbon  
7 dioxide to prevent heating beyond 1° C (1.8° F) (which scientific analysis deems catastrophic).  
8 Our atmosphere is now at approximately 390 ppm.

9       9. If our society wants to protect and keep the world safe for our children and our  
10 children's children, our federal government must immediately be ordered to accept its fiduciary  
11 responsibility mandated by the Public Trust Doctrine. Plaintiffs, and each of them, are already  
12 experiencing serious environmental, economic, physical, emotional, and aesthetic injuries as a  
13 result of our federal government's actions and inactions. If our federal government continues to  
14 contribute to this atmospheric crisis, those injuries will intensify and expand. A failure to  
15 immediately take bold action to protect and preserve Earth's safe climate-zone will cause  
16 irreparable harm to Plaintiffs and others. Immediate federal government action is imperative.  
17 Once we pass certain tipping points of energy imbalance and planetary heating, we will not be  
18 able to prevent the ensuing harm. A failure to act soon will ensure the collapse of Earth's natural  
19 systems resulting in a planet that is largely unfit for human life.

20       10. Defendants, and each of them, by their actions of causing, approving and allowing  
21 too many carbon emissions into Earth's atmosphere, cumulatively resulting in global heating,  
22 ocean acidification, melting icecaps and ice sheets, biodiversity loss, and extreme weather events  
23 have breached and are continuing to breach their duty as trustees. These and other catastrophes  
24 are already underway throughout our country and the world, and are getting worse. Last year's  
25 extraordinary floods in Pakistan displaced one million people, with more than 150,000 people still  
26 unable to return home six months later.

27       11. Human-induced global energy imbalance is a humanitarian crisis, as well as a  
28 military and national security concern. As the current Chairman of the Joint Chiefs of Staff,

1 Admiral Mike Mullen, stated: "Whatever the root cause, climate change's potential impacts are  
 2 sobering and far-reaching." Admiral Mullen went on to warn: "Scarcity of water, food and space  
 3 could create not only a humanitarian crisis, but create conditions that could lead to failed states,  
 4 instability and, potentially, radicalization." Our federal government must not ignore our military  
 5 leaders' concerns.

6       12. For over the past 200 years, the burning of fossil fuels, such as coal and oil,  
 7 together with massive deforestation have caused a substantial increase in the atmospheric  
 8 concentrations of heat-trapping greenhouse gases. These gases prevent heat from escaping to  
 9 space, like the glass panels of a greenhouse. The extent of these gases in the atmosphere have  
 10 changed and fluctuated over geologic time but have reached an equilibrium -- Earth's safe  
 11 climate-zone -- which is necessary to life as we know it. However, as the concentrations of these  
 12 heat-trapping greenhouse gases continue to increase in the atmosphere, Earth's temperature is  
 13 climbing above Earth's safe climate-zone.

14       13. According to data from the National Oceanic and Atmospheric Administration  
 15 ("NOAA") and the National Aeronautics and Space Administration ("NASA"), Earth's average  
 16 surface temperature has increased by about .67° to .8°C (1.2 to 1.4°F) in the last 100 years. In  
 17 fact, the eight warmest years on record (since 1850) have all occurred since 1998. Coupled with  
 18 the increase in the Earth's temperature, other aspects of the climate are also changing, such as  
 19 rainfall patterns, snow and ice cover, and sea levels.

20       14. Climate changes are currently occurring faster than even the most pessimistic  
 21 scenarios presented in the 2007 Intergovernmental Panel on Climate Change. A variety of studies  
 22 conclude a further increase of average annual temperatures of 2° C (3.6° F) above current levels  
 23 would cause severe, widespread, and irreversible impacts. The future is likely to bring increases  
 24 of 3 to 11 degrees F above current levels, if our federal government does not accept its  
 25 responsibility and take immediate action.

26       15. To return Earth's energy balance and protect its natural systems, Defendants, and  
 27 each of them, must reduce the United States' fair share of annual carbon dioxide emissions in  
 28 order to draw down atmospheric carbon dioxide by at least 35-40 ppm by the end of this century.

1 To limit average surface heating to no more than 1° C (1.8° F) above pre-industrial temperatures,  
2 concentrations of atmospheric carbon dioxide should be no more than 350 ppm. Today, carbon  
3 dioxide concentrations have already reached approximately 390 ppm and are projected to exceed  
4 400 ppm within a matter of years. To prevent exceeding 400 ppm it is essential that we draw  
5 down the carbon dioxide from the atmosphere by immediately reducing GHG emissions and  
6 deforestation, and also undertaking significant reforestation.

7 16. This Complaint seeks to investigate the effectiveness of federal authorities in  
8 planning and managing our nation's response to human-induced global energy imbalance. If  
9 Defendants, and each of them, do not immediately account for and react to this crisis and act  
10 swiftly to reduce carbon dioxide emissions into the atmosphere, our current environment will no  
11 longer exist. If Defendants, and each of them, do not act immediately to reduce carbon emissions  
12 into the atmosphere, Plaintiffs and future generations of children will face a planet that may be  
13 largely uninhabitable. We have an intergenerational obligation to protect and preserve our planet  
14 for them. The United States must lead the way to GHG emissions reductions. It not only is the  
15 single largest contributor of any sovereign nation to this harming of the atmosphere, but it also  
16 has the capacity and the technology to reduce emissions if required to do so. However, if the  
17 United States government does not act now to reduce emissions and protect the atmosphere, the  
18 catastrophic collapse of Earth's natural systems is inevitable.

19 17. To return Earth's energy balance, to protect its natural systems, and to fulfill its  
20 responsibilities, Defendants, and each of them, must do their part to account for and reduce  
21 annual carbon dioxide emissions and draw down atmospheric carbon dioxide to less than 350  
22 ppm from its current level of 390 ppm to limit average surface heating to 1° C (1.8° F) above pre-  
23 industrial temperatures.

24 18. Secretary Kenneth L. Salazar, Secretary Gary F. Locke, Secretary Steven Chu,  
25 Secretary Thomas J. Vilsack, Secretary Robert M. Gates, and Administrator Lisa P. Jackson,  
26 through their respective offices, departments, and agencies, the Department of Interior, the  
27 Department of Commerce, the Department of Energy, the Department of Agriculture, the  
28 Department of Defense, and the Environmental Protection Agency, have the primary duties to

1 ensure that our atmosphere is protected for present and future citizens. These Defendants, and  
2 their predecessors, have violated and continue to violate their fiduciary duties to protect the  
3 atmosphere for these Plaintiffs, as well as for all children across our country.

4       19. Defendants, and each of them, have failed to implement our nation's laws for the  
5 benefit of the people of the United States, including these Plaintiffs, as well as for all children  
6 across the country, and to affirmatively protect our vital public resources. It is our nation's  
7 judiciary that can and must enforce the Public Trust's fiduciary responsibility and mandate the  
8 preservation of our natural resources and protection of our children throughout our country by  
9 requiring prompt mitigating or preventative action. Significant delays in addressing the human-  
10 induced global energy imbalance will compound the crisis and make future remedies more  
11 difficult, painful, and costly. Ordering prudent actions now will improve the situation, avoiding  
12 more sweeping action in the future.

13       20. It has been more than 18 years since the United States ratified the United Nations  
14 Framework Convention on Climate Change ("UNFCCC") on October 15, 1992. Children born  
15 on that day have now entered adulthood. Yet the United States government has failed to address  
16 this problem in any meaningful way to reverse the human-induced global energy imbalance. This  
17 emergency situation demands immediate judicial attention.

18       **II. JURISDICTION AND VENUE**

19       21. This action is brought pursuant to the federal Public Trust Doctrine and the United  
20 States Constitution. This Court has jurisdiction pursuant to 28 U.S.C. § 1331, as this action arises  
21 under the laws of the United States.

22       22. Venue lies in this judicial district by virtue of 28 U.S.C. § 1391(e). Defendants  
23 have offices in this district, one Plaintiff resides in this district, and the events or omissions giving  
24 rise to the claims arise in this district.

25       23. Defendants, and each of them, reside in this judicial district. This civil action is  
26 brought against officers of the United States acting in their official capacities and a substantial  
27 part of the events or omissions giving rise to the claims in this case occurred in the Northern  
28 District of California. One of the claims in this Complaint concerns EPA's failure to perform

1 fiduciary duties with regard to California. EPA Region 9, whose jurisdiction includes California,  
 2 is headquartered in San Francisco. Thus several of the events and omissions at issue in this action  
 3 occurred at EPA's Region 9 headquarters in San Francisco. In addition, Plaintiff Madeleine W.  
 4 and Zoe J. reside in San Francisco, California and Plaintiffs' counsel is located in Burlingame,  
 5 California. Therefore, venue is proper in this Court pursuant to 28 U.S.C. Section 1391(e).

6 **III. INTRADISTRICT ASSIGNMENT**

7 24. A substantial part of the events and omission giving rise to the claims in this case  
 8 occurred in the County of San Francisco. Accordingly, assignment to the San Francisco Division  
 9 or the Oakland Division is proper pursuant to Civil L.R. 3-2(c) and (d).

10 **IV. PARTIES**

11 **A. ALEC L.**

12 25. Plaintiff ALEC L. is a 16 year old citizen of the United States who resides in  
 13 Ventura, California. Alec is a beneficiary of the Public Trust in our atmosphere and is owed a  
 14 fiduciary duty by the United States government. In 2006, when Alec was 12, he started a non-  
 15 profit organization, Plaintiff Kids vs Global Warming, to educate youth of the world about the  
 16 imminence of the human made climate change crisis. Alec hoped to organize his generation and  
 17 their parents to take urgent action to protect Earth from the dire consequences that are already  
 18 occurring and will only get worse if drastic action is not taken soon. Since then, he has been  
 19 working to teach his peers about these problems and convince our federal government to protect  
 20 the atmosphere for present and future generations. In 2050, when the worst effects of human  
 21 made climate change are expected to be seen, Alec will be 56 years old. Alec, a minor, brings  
 22 this action on his own behalf and is also represented by his mother, Victoria Loorz, who also  
 23 resides in Ventura, California.

24 26. Alec has spent his entire teenaged life focused on researching, writing, and  
 25 speaking to his peers about the reality that the burning of fossil fuels has led to an imbalance of  
 26 Earth's natural systems. Alec is keenly aware that the future effects are only part of the story  
 27 because human made climate change is already affecting millions of people around the world, and  
 28 the youngest generations will be hurt the most.

1       27. Human made climate change is adversely affecting Alec now. For example, he  
 2 has lived in Breckenridge, Colorado, where he enjoyed hiking and walking in forests that are now  
 3 being destroyed by pine beetles, as a result of human made climate change. These forests are on  
 4 public lands. Alec has experienced immense aesthetic enjoyment from these forests in his past  
 5 and would like to continue to enjoy the forests in the future, but is impaired in his ability to do so  
 6 because of the devastation that is caused by human made climate change. Winter temperatures in  
 7 recent years are not cold enough to kill off the beetles and, as a result, Alec has seen 90% of the  
 8 trees destroyed over the past five years.

9       28. Alec is experiencing other devastating effects of the climate crisis. For example,  
 10 he traveled to Iceland in the summer of 2010 to hike on glacial tongues running off of the third  
 11 largest ice sheet in the world. He wept when he saw that new trails need to be marked almost  
 12 every day because the glacier is receding up to 3,000 feet per year, as a result of the aberrational  
 13 warming of our planet. Unless immediate action is taken to ameliorate the effects of human made  
 14 climate change, he will never see glaciers of that magnitude again.

15      29. In his home town of Ventura, California, Alec and 50 other middle school students  
 16 erected poles that show where the future sea level rise will be if nothing is done to change our  
 17 current rate of emissions. The poles show how, within Alec's lifetime, the sea level will rise  
 18 enough to lose the waste water treatment center in his community, the power generating station  
 19 for the entire county, the freeway, all of the beaches, and hundreds of homes – all of which will  
 20 negatively impact Alec personally.

21      30. Alec is passionately driven to "stop global warming" within his lifetime because  
 22 he has seen how the burning of fossil fuels and increased emission of greenhouse gases melt  
 23 snowpacks and glaciers, cause droughts and reduce water supplies, and compromise food  
 24 production, putting his future and the lives of hundreds of millions of people in danger.

25      B. MADELEINE W.

26      31. Plaintiff Madeleine W. is 15 years old and lives in San Francisco, California.  
 27 Madeleine is a beneficiary of the Public Trust in our atmosphere and is owed a fiduciary duty by  
 28 the United States government. In 6<sup>th</sup> grade, Madeleine was concerned about how much water and

1 energy her school was using, so she co-founded her school's Environmental Action Committee  
 2 with her science teacher.

3       32. When Madeleine was nine, she started a nonprofit called "Superheroes Needed"  
 4 after she saw a photograph of an African mother holding her child who had died from starvation  
 5 caused by drought in their homeland. What she first mistook for a baby was a child her same  
 6 age—9 years old. The size of the child was due to malnourishment. Superheroes Needed sold  
 7 handmade necklaces for building wells in Africa because water issues there are so urgent.  
 8 Madeleine knows this story will become exponentially common without addressing human made  
 9 climate change: poor countries will only become poorer, those who have little to eat will have  
 10 even less as drought and food shortages worsen, not just in Africa but globally.

11       33. Through the fundraising efforts of Superheroes Needed, Madeleine and others  
 12 built wells in Africa, addressing water shortages exacerbated by human made climate change.

13       34. Madeleine's firsthand experiences solidified her passion, desire, and need to  
 14 advocate for those people and natural resources without a voice. Madeleine traveled with her  
 15 mother, a social justice attorney, and her godfather, Robert Kennedy, Jr., to Patagonia, Chile, to  
 16 fight against the damming of the Futaleufu River.

17       35. Madeleine, a minor, brings this action on her own behalf and is also represented by  
 18 her mother, Janet Wallace, who also resides in San Francisco, California.

19       **C. GARRETT AND GRANT S.**

20       36. Plaintiffs Garrett and Grant S. are both 15 years old and live Timberville, Virginia.  
 21 Garrett and Grant are beneficiaries of the Public Trust in our atmosphere and are owed a fiduciary  
 22 duty by the United States government. Garrett and Grant have experienced consequences of  
 23 global warming in the various geographic locations they have lived. They resided in Pine  
 24 Mountain Club, California for 7 years, a beautiful community at 6,500 ft. in the Los Padres  
 25 National Forest. While they lived in Pine Mountain Club, they witnessed the destruction of  
 26 hundreds of pine trees from pine beetles, extreme weather patterns that left them without  
 27 electricity or water for several days, and drought and fire hazard in the forests.

28

1       37. Upon moving to Timberville, Virginia almost six years ago, Garrett and Grant  
2 were fortunate enough to live in a house located on the North fork of the Shenandoah River. Their  
3 excitement of being able to play, fish, and swim in the river was quickly thwarted. As new  
4 residents, they soon learned the river had become polluted as a result of lax standards of factory  
5 discharge into the river. The Shenandoah River had become unsafe for swimming. Also, "fish  
6 kill" became a common vocabulary word for the die off of trout, bass, and sunfish (sometimes in  
7 large numbers). Garrett and Grant would often fish in the Shenandoah River to examine the fish  
8 for potential lesions, and found several. The reason for these lesions and fish kill is related to the  
9 increased temperature of the river waters over the past decade.

10      38. Garrett and Grant greatly enjoy hiking, camping swimming in the rivers and  
11 creeks, and fishing. They care deeply about the environment, and personally take responsibility  
12 for keeping it clean, picking up trash, and expect others also to take responsibility for the  
13 environment. In addition, Garrett and Grant have been involved with using the arts, drama, and  
14 music to communicate the need for social change in public places, at rallies, in malls, parks, and  
15 homeless shelters.

16      39. Garrett and Grant, both minors, bring this action on their own behalf and are also  
17 represented by their mother, Valerie Serrels, who also resides in Timberville, Virginia.

18      D. **ZOE J.**

19      40. Zoe J. is 16 years old and resides in San Francisco, California. Zoe is a  
20 beneficiary of the Public Trust in our atmosphere and is owed a fiduciary duty by the United  
21 States government. Since childhood, Zoe has actively been involved in protecting both the safety  
22 of her environment, and the safety of those who inhabit it. In Junior High School, she worked  
23 closely with the organization "Teens Turning Green" on an initiative called "Lips Against Lead,"  
24 in which Zoe helped to gather signatures to petition for a law that banned lead in lipstick. She  
25 also served as a class representative in her elementary school Eco-Council.

26      41. Zoe resides in the San Francisco Bay Area. San Francisco Bay is a large estuary  
27 that will be dramatically impacted by rising sea levels that will accompany drastic climate  
28 change, including global warming. Water treatment facilities and other essential infrastructure

1 located near sea level around the Bay will require extremely expensive repair, or even relocation,  
2 in the event that sea levels continue to rise. While visiting friends and family Zoe has become  
3 familiar with the Sacramento-San Joaquin River Delta. The Delta forms the east boundary of San  
4 Francisco Bay and is the hub of the State's water system. The entire ecosystem and water  
5 capacity of the Delta is likely to be severely impacted as a result of these rising sea levels. A  
6 huge part of California's population and economy depends on water transported through the  
7 Delta.

8       42.     Zoe has had the opportunity to visit East Africa and is concerned about the  
9 expansion of malaria in highland areas as temperature increases in this region. In 2004, the  
10 United States government invested almost \$200 million in the research and development of  
11 malaria treatments and additional aid to fund malaria prevention and control. Zoe believes that  
12 investment in curbing global warming will also pay benefits by limiting the expansion of malaria.

13       43.     Zoe has also had the opportunity to visit her uncle in the Florida Panhandle. Her  
14 uncle sells fishing boats and supplies and she has a deep appreciation for the sensitive habitat of  
15 Apalachicola Bay and the fisheries and oyster production that occurs there. She has spent many  
16 hours fishing and learning about the livelihood of this part of our country. Global warming  
17 related sea level rise also would have a devastating impact on Apalachicola Bay, and her uncle's  
18 business.

19       44.     Zoe, a minor, brings this action on her own behalf and is also represented by her  
20 mother, Nina Grove, who also resides in San Francisco, California.

21       E.     **KIDS vs GLOBAL WARMING**

22       45.     Plaintiff KIDS vs GLOBAL WARMING ("KvGW") is a non-profit organization  
23 committed to creating opportunities for youth to learn about the science and solutions of human  
24 made climate change, and then to take action that will reduce dependence on fossil fuels and  
25 influence governments throughout the world to make good decisions now that impact the future  
26 of youth and generations to come. KvGW is a membership organization of over 10,000 youth  
27 from all over the country who are concerned about how human made climate change is affecting  
28 and will continue to affect them and their future. KvGW brings this action on behalf of its

1 members. The members of KvGW are beneficiaries of the Public Trust in our atmosphere and are  
 2 owed a fiduciary duty by the United States government. The actions of Defendants, and each of  
 3 them, are injuring KvGW's members in ways that are germane to the organization's mission.  
 4 Namely, Defendants, and each of them, are causing harm to and failing to protect the atmosphere  
 5 on which KvGW's members rely for their health, well-being and survival. KvGW brings this  
 6 action on behalf of its members.

7       F.     WILDEARTH GUARDIANS

8       46. Plaintiff WILDEARTH GUARDIANS ("Guardians") is a non-profit conservation  
 9 organization. Guardians is dedicated to protecting and restoring wildlife, wild rivers, and wild  
 10 places in the American West, and to safeguarding Earth's climate and air quality. Towards this  
 11 end, Guardians and its members work to replace fossil fuels with clean, renewable energy in order  
 12 to safeguard public health, the environment, and Earth's climate for future generations. Guardians  
 13 brings this action on its own behalf and on behalf of its adversely affected members. Guardians  
 14 has approximately 4,500 members, many of whom live, work, or recreate in Colorado. The  
 15 members of Guardians are beneficiaries of the Public Trust in our atmosphere and are owed a  
 16 fiduciary duty by the United States government.

17       47. The failure of Defendants, and each of them, to perform their fiduciary duties as  
 18 described herein affects each Plaintiff, as well as the staff and members of Plaintiffs KvGW and  
 19 Guardians, by depriving them of protection and opportunities. The failure of Defendants, and  
 20 each of them, to perform their fiduciary duties also creates uncertainty each Plaintiff, as well as  
 21 the staff and members of Plaintiffs KvGW and Guardians, as to whether they are improperly and  
 22 unnecessarily exposed to human made climate change.

23       48. The survival, health, recreational, scientific, cultural, inspirational, spiritual,  
 24 educational, aesthetic, emotional well-being and other rights and interests of Plaintiffs, and each  
 25 of them, are and will be increasingly adversely and irreparably injured by the failure of  
 26 Defendants, and each of them, to stop the injurious use of natural resources unless the relief  
 27 requested here is granted. Likewise, the ongoing breach of the duty to preserve and protect the  
 28 atmosphere for present and future beneficiaries, which has not been abated or properly mitigated,

1 will continue to adversely and irreparably injure Plaintiffs, and each of them, unless the relief  
2 requested here is granted. These are actual, concrete injuries to Plaintiffs, and each of them, that  
3 would be redressed by the relief sought here.

4 49. The above injuries will continue until this Court grants the relief requested herein.

5 **G. DEFENDANTS**

6 50. Defendant United States Environmental Protection Agency (“EPA”) is a federal  
7 agency. Its mission is to protect human health and the natural environment, on which life  
8 depends, including air, water and the land. As part of this duty, it must ensure that federal laws  
9 protecting human health and the environment are implemented and enforced effectively and  
10 fairly. EPA has failed to preserve and protect the atmosphere and has failed to effectively  
11 implement and enforce the laws under its jurisdiction for this purpose, for present and future  
12 generations.

13 51. Defendant Lisa P. Jackson is the Administrator of EPA, and is responsible for all  
14 actions of the EPA.

15 52. Defendant United States Department of Interior (“DOI”) manages one-fifth of the  
16 country’s land, including forests and grazing lands, 35,000 miles of coastline and 1.76 billion  
17 acres of the Outer Continental Shelf. DOI’s mission is to protect America’s natural resources and  
18 heritage, honor cultures and tribal communities, and supply the energy to power the future of  
19 America. It has a duty to uphold the United States government’s trust responsibilities. DOI has  
20 failed to preserve and protect the atmosphere and has failed to provide climate-safe energy to  
21 power not just today’s America, but America for future generations without wasting the  
22 atmospheric trust. DOI has contributed to and continues to contribute to the climate catastrophe  
23 by permitting logging, livestock grazing, off-road vehicle use, the extraction of coal, coal-bed  
24 methane, oil, oil shale and natural gas, and oil, coal and electric infrastructure and transmission  
25 facilities on public land. DOI continues to fail to preserve and protect the Public Trust in our  
26 atmosphere from greenhouse gases from all of the aforementioned activities under its jurisdiction.

27 53. Defendant Kenneth L. Salazar is the Secretary of DOI, and is responsible for all  
28 actions of DOI.

1

2       54. Defendant United States Department of Agriculture (“USDA”) has authority over  
3 our nation’s food, agriculture, and many natural resources, including national forests, which serve  
4 the vital role of absorbing carbon dioxide from our atmosphere – commonly referred to as  
5 “carbon sequestering.” USDA has contributed to and continues to contribute to the climate  
6 catastrophe by permitting large-scale logging in national forests, and it continues to fail to  
7 preserve and protect the atmospheric trust from greenhouse gases from farming, agricultural  
8 practices, and fossil fuel extraction and use under its jurisdiction.

9       55. Defendant Thomas J. Vilsack is the Secretary of USDA and responsible for all  
10 actions of that agency.

11       56. Defendant United States Department of Commerce (“Commerce”) is a federal  
12 agency whose mission is to help make American businesses more innovative at home and more  
13 competitive abroad. Through its bureau, NOAA, it is also responsible for preserving and  
14 protecting natural resources, including fisheries, coastal areas, marine life, and our atmosphere.  
15 Commerce has failed to preserve and protect the atmosphere and other natural resources under its  
16 jurisdiction and has failed prevent the waste of the Public Trust in the atmosphere in its efforts to  
17 make American industry competitive.

18       57. Defendant Gary F. Locke is the Secretary of Commerce, and is responsible for all  
19 actions of that agency.

20       58. Defendant United States Department of Energy (“DOE”) is a federal agency  
21 whose mission is to advance the national, economic, and energy security of the United States  
22 through clean, reliable, and affordable energy, to protect the environment, and to encourage  
23 innovations in science and technology that improve the quality of life. DOE has failed to  
24 preserve and protect the atmosphere by advancing clean, reliable, and affordable energy to  
25 replace fossil fuel sources of energy, which are wasting the trust asset.

26       59. Secretary Steven Chu, in his official capacity, is responsible for all actions of the  
27 Department of Energy.

28

1       60. Defendant United States Department of Defense (“DOD”) is a federal agency  
 2 whose mission includes protecting the security of our country. DOD is the oldest and largest  
 3 government agency. It is the nation’s largest employer and is responsible for enormous  
 4 greenhouse gas emissions from its vehicle fleet, electricity for buildings, and its weapons  
 5 infrastructure. DOD has contributed and continues to contribute to the climate warming situation  
 6 and the waste of the Public Trust in the atmosphere DOD is also failing to preserve and protect  
 7 the atmosphere, which threatens the security of life on Earth and the security of our nation due to  
 8 the instability the climate crisis is creating and will continue to create around the world. For  
 9 example, the number of human made climate change refugees will continue to increase as  
 10 weather events and lack of steady supplies of food and water increase across the world. Also as  
 11 climate security diminishes, largely as a result of the United States government’s historic  
 12 emissions and failure to protect the atmosphere, animosity towards the United States will  
 13 continue to increase.

14       61. Defendant Robert M. Gates is the Secretary of DOD, and is responsible for all  
 15 actions of DOD.

16       62. Collectively, these Federal agencies are charged with protecting citizens and the  
 17 nation; encompassed within this duty is the preservation of a habitable planet. According to the  
 18 White House, “[t]he Federal Government occupies nearly 500,000 buildings, operates more than  
 19 600,000 vehicles, employs more than 1.8 million civilians, and purchases more than \$500 billion  
 20 per year in goods and services. As the single-largest energy consumer in the U.S. economy, the  
 21 Federal Government spent more than \$24.5 billion on electricity and fuel in 2008 alone.” Despite  
 22 clearly stated responsibilities to protect and improve the quality of life for all Americans,  
 23 Defendants, and each of them, are actually contributing, actively and passively, to a serious threat  
 24 to individual and national security.

25       **V. FACTS GIVING RISE TO PLAINTIFFS’ CLAIMS**

26       **A. THE PUBLIC TRUST DOCTRINE**

27       63. Plaintiffs bring this action to enforce mandatory duty of Defendants, and each of  
 28 them, under the Public Trust Doctrine. The Public Trust Doctrine requires Defendants, and each

1 of them, to hold vital natural resources in “trust” for present and future generations of its citizens.  
2 These resources are so vital to the well-being of our people that they must be protected by  
3 distinctive, long-standing judicial principles. As the Supreme Court has stated on numerous  
4 occasions, “the police power embraces regulations designed to promote public convenience or the  
5 general welfare, and not merely those in the interest of public health, safety, and morals.”  
6 *Nashville, Chattanooga & St. Louis Railway v. Walters*, 294 U.S. 405, 429 (1935). The  
7 atmosphere, including the air, is one of the crucial assets protected by the Public Trust Doctrine.  
8 The Public Trust imposes a duty on Defendants, and each of them, to affirmatively preserve and  
9 protect our nation’s trust assets from damage or loss, and not to use our nation’s trust assets in a  
10 manner that causes injury to the trust beneficiaries, present and future. The sovereign trustee has  
11 an affirmative fiduciary duty to prevent waste, to use reasonable skill and care to preserve the  
12 trust property, and to maintain trust assets.

13       64. The sovereign’s fiduciary duty in this instance is defined by scientists’ concrete  
14 prescriptions for carbon reductions. Scientists have clearly expressed the minimum carbon  
15 dioxide reductions needed to restore Earth’s climate equilibrium, and the requisite timelines for  
16 implementation of those reductions. Defendants, and each of them, may not disclaim their  
17 fiduciary duty and are subject to an ongoing mandatory duty to preserve and protect these  
18 resources.

19       **B. EARTH’S ATMOSPHERIC CLIMATE EMERGENCY**

20       65. Global heating is significantly and adversely impacting Earth’s climate. Although  
21 some degree of global heating is a normal natural phenomenon, the trend of global heating in the  
22 past several decades has occurred largely as a result of human activities that release heat-trapping  
23 greenhouse gases and intensify Earth’s natural greenhouse effect, at an accelerated rate, thereby  
24 changing Earth’s climate. This abnormal climate change is unequivocally human-induced, is  
25 occurring now, and will continue to occur unless drastic measures are taken to curtail it. Human  
26 made climate change is damaging natural and human systems, and, if unrestrained, will threaten  
27 our planet’s habitability for humans as well as countless other species. According to Defendant  
28 DOI, “climate change is affecting every corner of the American continent.”

1       66. According to Defendant EPA, “greenhouse gases in the atmosphere may  
 2 reasonably be anticipated both to endanger public health and to endanger public welfare.” In  
 3 April 2009, the EPA further stated “[t]he evidence points ineluctably to the conclusion that  
 4 *climate change is upon us* as a result of greenhouse gas emissions, that *climate changes are*  
 5 *already occurring that harm our health and welfare, and that the effects will only worsen over*  
 6 *time in the absence of regulatory action.*”

7       **C. HOW HUMANITY HAS CHANGED EARTH'S CLIMATE SYSTEM**

8       67. Human beings have lived on Earth for the last 12,000 years, during which time  
 9 human civilization has developed – i.e., Earth’s atmospheric amounts of GHGs, including CO<sub>2</sub>  
 10 and water vapor, were “just right” to maintain the climate we have enjoyed for thousands of  
 11 years. Earth’s atmosphere has far lower GHG levels than those of Venus, which is too hot, and  
 12 more than those of Mars, which is too cold, for life that has developed on this planet. Moreover,  
 13 during these 12,000 years, coastlines, sea levels, and global average temperatures have remained  
 14 relatively constant, allowing the development of ports and commerce, as well as large-scale  
 15 agriculture.

16       68. GHGs in the atmosphere act somewhat like a blanket over Earth in preventing  
 17 some of the heat emitted by the surface from escaping to space. More GHGs in the atmosphere  
 18 mean more heat being retained on Earth, with less radiating out to space. Without this  
 19 greenhouse effect, the global average surface temperature of our planet would be about 0°F (-  
 20 8°C) instead of 59°F (15°C). Scientists have understood this basic mechanism of global energy  
 21 balance since the mid-nineteenth century.

22       69. Since the pre-industrial period, human beings have significantly altered the  
 23 chemical composition of Earth’s atmosphere and its climate system. We have changed the  
 24 atmosphere and its climate system by engaging in activities that produce or release GHGs into the  
 25 atmosphere –burning fossil fuels, driving cars, raising livestock on an industrial scale, and cutting  
 26 down forests. Although much excess CO<sub>2</sub> is absorbed by the oceans and by plants (chiefly  
 27 forests), the increase of GHG concentrations resulting from historic and current human activities  
 28 has altered Earth’s ability to maintain the delicate balance of the energy it receives from the sun

1 and radiates back into space. This human-induced global energy imbalance has caused most of  
2 the global warming over the last approximately 50 years.

3       70. Current CO<sub>2</sub> concentration in our atmosphere is 390 ppm (compared to the pre-  
4 industrial concentration of 280 ppm). Current atmospheric CO<sub>2</sub> concentrations are likely the  
5 highest in at least 800,000 years.

6       71. Concentrations of other GHGs in the atmosphere have also increased from human  
7 activities. Atmospheric concentrations of methane (CH<sub>4</sub>), for example, have increased nearly  
8 150% since the pre-industrial period, and they too are higher than at any time in at least the last  
9 800,000 years. Concentrations of nitrous oxide (N<sub>2</sub>O) have also increased.

10      72. We not only continue to add GHGs into the atmosphere at a rate that outpaces their  
11 removal through natural processes, but the current and projected CO<sub>2</sub> increase, for example, is  
12 about a hundred times faster than has occurred over the past 800,000 years.

13      73. This increase must be considered in light of the lifetime of GHGs in the  
14 atmosphere. In particular, a substantial portion of every ton of CO<sub>2</sub> emitted by humans persists in  
15 the atmosphere for as long as a millennium or more. The concentrations of GHGs in the  
16 atmosphere therefore are the cumulative result of historic and current emissions.

17      D. **EARTH IS GETTING TOO HOT TOO FAST DUE TO HUMAN**  
18                   **ACTIVITIES**

19      74. Climate refers, among other things, to temperature, precipitation, and wind  
20 patterns that occur over multiple years, decades, centuries, or longer. Climate is different from  
21 weather and does not typically vary in a short time (e.g., under a year) unless something abruptly  
22 forces such a change – such as unusually large volcanic eruptions that darken the sky and block  
23 out the sun's heat. Humans have become the “primary driver” of climate change. These changes  
24 are observable. Climate change we are experiencing now is unique because it not only is due to  
25 human causes but is occurring much faster than was ever anticipated.

26      75. Human made climate change is a unique problem because it now threatens the  
27 integrity of the biosphere in which human life and civilization has developed. Left unchecked,  
28 human made climate change is putting our human civilization at risk. Observations over recent

1 years, evidence of Earth's past climate, well-established scientific principles, and the results of  
2 sophisticated models of climate all point to changes caused by the warming of our planet that will  
3 detrimentally impact all aspects of our life, including not just the environment and human health  
4 and welfare, but commerce and the world economy, military security and the stability of  
5 governments everywhere. Warming will further make many problems, such as global and  
6 societal inequality, worse, because its impacts will fall unequally both geographically and  
7 socioeconomically.

8       76. One key observable change is the rapid increase in recorded global surface  
9 temperatures over the past several decades. As a result of increased atmospheric GHGs from  
10 human activities, based on fundamental scientific principles, Earth has been warming at an  
11 accelerated rate. Those increased concentrations of GHGs in our atmosphere, primarily CO<sub>2</sub>,  
12 have raised global surface temperature by 1.4°F (0.8°C) over the industrial era (the last hundred  
13 to hundred fifty years). In the last thirty years, the acceleration of change has intensified as Earth  
14 has been warming at a rate about three times faster than that over the last hundred years. This is a  
15 known fact based on thermometer readings from around the globe that date from the 1800s, as  
16 well as data recently gathered by satellites.

17       77. Because of year-to-year variations in these thermometer readings, as with daily  
18 readings, scientists compare temperature differences over multiple decades to determine patterns.  
19 Using this decadal scale, the surface of the planet has warmed at a rate of roughly 0.3 to 0.4°F  
20 (0.15 to 0.2°C) per decade since the late 1970s. As a result of this accelerated global warming,  
21 Earth is now within 1.8°F (1°C) of its highest temperature in the past million years.

22       78. The dramatic increase of 1.4°F (0.8°C) in the average global surface temperature  
23 over the industrial era is alarming. By comparison, the global surface temperature during the last  
24 Ice Age was about 9°F (5°C) cooler than today. In contrast to daily *ambient* temperatures, which  
25 can easily vary as much as 15°F, the average global surface temperature had remained relatively  
26 stable for the last 12,000 years, during which period human civilization developed, until it began  
27 a sudden climb.

28

1       79.     The IPCC has observed that “[w]arming of the climate system is unequivocal.”  
 2 The NAS, the Science Academies of eleven nations, and the first Synthesis and Assessment  
 3 Product of the U.S. Climate Change Science Plan corroborate the IPCC’s fundamental  
 4 conclusion, as does every relevant professional scientific society both in the United States and  
 5 throughout the world.

6       80.     Consistent with this expected warming, two of the last ten years (2005 and 2010)  
 7 rank as the warmest years since 1850, when continuous temperature measurements began to be  
 8 recorded (which is called the period of instrumental records). A small rise in global average  
 9 ambient temperature, like the rise in a baseball team’s batting average, can be the result of many  
 10 small changes (all 25 players lift their average by .002 percentage points), or some small changes  
 11 and a few very large changes (ten players increase by. 0025 and one player gets hot and raises his  
 12 average by .025 points.) Similar scenarios are happening to our Earth. More than a dozen  
 13 nations experienced record high temperatures the summer of 2010. For the first time in the period  
 14 of instrumental records, Moscow, Russia, experienced temperatures in excess of 100°F. Several  
 15 regions of our nation also experienced unusual summertime heat waves last year. Notably, these  
 16 record-breaking temperatures occurred during a period of minimum solar heating. In addition to  
 17 higher extreme temperatures, spring is coming earlier to many regions and winter is coming later.  
 18 Eight of the ten warmest years during the period of instrumental records occurred since 2001.  
 19 Warming has been greatest in the polar regions and at higher altitudes.

20       E.     **OTHER SIGNS VERIFY THE ATMOSPHERE’S CLIMATE SYSTEM IS**  
 21           **WARMING ALARMINGLY FAST**

22       81.     Direct temperature readings are not the only signs of this abnormal interdecadal  
 23 global warming trend. Changes in many different aspects of Earth’s climate system over the past  
 24 century are consistent with this warming: based on straightforward scientific principles, human-  
 25 induced GHG increases lead not only to land surfaces warming, but also to warming oceans,  
 26 warming subsurface (i.e., Earth’s upper crust), increased atmospheric moisture levels, rises in the  
 27 global sea level, and changes in rainfall and atmospheric air circulation patterns that affect water  
 28 and heat distribution.

1       **1. WARMING OCEANS**

2       82.     As expected, consistent with the temperature increases in land surfaces, global  
3     average ocean temperatures have increased. The mean global sea surface temperature is about  
4     0.6°F (0.35°C) higher than the base line for the period 1961 to 1990. In addition, the most  
5     efficient indicator of our planet's energy imbalance due to human-induced GHG increases is the  
6     long-term increase in global average ocean heat content over the last 50 years, extending down to  
7     several thousand meters below the ocean surface.

8       **2. CHANGING PRECIPITATION PATTERNS**

9       83.     As expected, precipitation patterns have changed due to increases in atmospheric  
10    moisture levels and changes in atmospheric air circulation patterns, yet another indicator that  
11    Earth is warming. With further global warming, moisture levels are expected to increase further  
12    because warmer air generally holds more moisture. In more arid regions, however, higher  
13    temperatures generally lead to greater net evaporation, i.e. exacerbation of the aridity.

14      84.     These changes in Earth's water cycle increase the potential for, and severity of,  
15    severe storms, flooding and droughts. Storm-prone areas are already experiencing a greater  
16    chance of severe storms, and this will continue. Even in arid areas precipitation may fall all at  
17    once and cause flash flooding, followed by drought.

18      85.     We have seen such changes already. Droughts in parts of the western and  
19    southwestern United States have increased in frequency and severity within the last fifty years,  
20    coincident with rising temperatures. In 2009, more than half of the United States received above  
21    normal precipitation; yet the southwestern United States, Arizona in particular, had one of its  
22    driest periods. In addition, the frequency and intensity of the heaviest rainfall has increased  
23    substantially in our nation over the last 50 years, most strikingly in the Northeast.

24      86.     Based on the laws of physics and the past climate record, scientists have concluded  
25    that precipitation events will increase globally, particularly in tropical and high latitude regions,  
26    while decreasing in subtropical and mid-latitude regions, with longer periods between normal  
27    heavy rainfalls.

1       87. Other changes consistent with climate modeling resulting from human-induced  
2 global warming have been observed, not just in the intensity and frequency of precipitation, but  
3 also in the type of precipitation. In higher altitude and latitude regions, including in mountainous  
4 areas, more precipitation is falling as rain rather than snow. With early snow melt occurring  
5 because of human made climate change, the reduction in snowpack has already resulted in water  
6 shortages in some areas. In other areas, the reverse is true. In Northern Europe and the  
7 northeastern United States, a change in air currents caused by the warming Arctic brought severe  
8 snowstorms both in 2009-2010 and in 2010-2011.

9           **3. RISING SEA LEVELS**

10       88. As expected, global sea levels have also risen. Sea levels have been rising at an  
11 average rate of 3.26 millimeters per year based on measurements from 1993 to present. Global  
12 average sea level rose about 17 centimeters (6.7 inches) in the last century; within the last decade,  
13 however, that rate nearly doubled. Rising seas, brought about by melting of polar icecaps,  
14 glaciers, and ice sheets, as well as by thermal expansion of the warming oceans, have already  
15 caused flooding in low-lying areas. The combination of rising sea levels and more severe storms  
16 greatly increases the odds of severe storm surges at high tides in coastal communities that can  
17 overwhelm coastal defenses such as levees and sea walls, as happened with Hurricane Katrina.

18       89. Sea level is not uniform across the globe, but depends on such things as ocean  
19 temperature and currents and land movements. Ocean currents and differences in sea surface  
20 temperatures will also result in different sea level impacts in different parts of the world because  
21 of the lay of the land. Most vulnerable are low-lying islands, river deltas, and areas that already  
22 lie below sea level because of land subsidence. Based upon these factors, scientists have  
23 concluded that the threats to the United States from rising seas are the most severe on the Gulf  
24 and Atlantic Coasts. Worldwide hundreds of millions of people live in river deltas and vulnerable  
25 coastlines along the southern and western coasts of Asia where rivers draining the Himalaya flow  
26 into the Indian and Pacific Oceans. Although sea level rise projections are still fairly uncertain, in  
27 a comprehensive review of studies on sea level rise in the 21<sup>st</sup> century published by the British  
28 Royal Society, researchers estimated the probable sea level rise in this century at between .5 and

1       2 meters (1 ½ to 6 ½ feet), continuing to rise for several centuries after that, depending on future  
2 CO<sub>2</sub> levels and the behavior of polar ice sheets.

3           90.     In past periods of Earth's history, global warming led to major losses of ice in  
4 Greenland and Antarctica. This knowledge provides a basis for scientists to estimate the amount  
5 of sea level rise under similar surface temperature and CO<sub>2</sub> conditions.

6           **4. MELTING GLACIERS, ICE SHEETS, AND SEA ICE**

7           91.     As expected, mountain glaciers, which are the source of freshwater for hundreds of  
8 millions of people, are receding worldwide because of warming temperatures. Today, Glacier  
9 National Park in Montana has only twenty five glaciers larger than twenty five acres, down from  
10 150 in 1850. The year 2009 marked the 19th consecutive year in which glaciers lost mass in both  
11 hemispheres. Mountain glaciers are in retreat all over the world, from Mt. Kilimanjaro in Africa  
12 to the Himalaya to the Alps (99% in retreat) to the glaciers of Peru and Chile (92% in retreat) to  
13 the United States. In the Brooks Range of northern Alaska all of the glaciers are in retreat and in  
14 southeastern Alaska 98 percent are in retreat.

15           92.     Though a minor contribution to sea level rise so far, the melting of mountain  
16 glaciers is particularly serious in areas that rely on snow melt for irrigation and drinking water  
17 supplies. In effect, a large snow pack or glacier acts as a supplemental reservoir or water tower,  
18 holding a great deal of water in the form of ice and snow through the winter and spring and  
19 releasing it in summer when rainfall is lower or absent. The water systems of the western United  
20 States (particularly California) and the Andean nations of Peru and Chile, among other places,  
21 rely heavily on such natural forms of water storage. In addition to providing a more reliable  
22 water supply, the storing of precipitation as ice and snow helps moderate potential flooding. By  
23 contrast, as temperatures warm not only will such areas lose this supplemental storage, but rain  
24 falling on snow accelerates the melting of glaciers and snow packs, often causing severe flooding.  
25 Ice is melting most dramatically at the poles. Temperatures in both the Arctic and Antarctica  
26 have risen substantially faster than the global average in recent decades, and this temperature rise  
27 has caused massive melting of glaciers and sea ice. Beginning in late 2000, the Jakobshavn  
28 Isbrae Glacier, which has a major influence over the mass of the Greenland ice sheet, lost

1 significant amounts of ice. In August of 2010, an enormous iceberg roughly ninety-seven square  
 2 miles in size, broke off from Greenland. Nine Antarctic ice shelves have also collapsed into  
 3 icebergs in the last fifty years, six of them since 1996. An ice shelf roughly the size of Rhode  
 4 Island collapsed in 2002, and an ice bridge collapsed in 2009, leaving an ice shelf the size of  
 5 Jamaica on the brink of breaking apart. The 2002 collapse of the Larsen B Ice Shelf, which had  
 6 existed for at least 11,000 years, was “unprecedented in respect to both area and time.” The  
 7 “sudden and complete disintegration” of the Larsen B Ice Shelf took a mere 35 days.

8       93. During the peak of the 2007 melt season (September), the extent of Arctic sea ice  
 9 (frozen ocean water) declined precipitously to its lowest level since satellite measurements began  
 10 in 1979. Although the extent of Arctic sea ice was higher in September, 2010 than in September,  
 11 2007, in November 2010 new ice stopped forming as the Arctic underwent a warming period. By  
 12 the end of 2010 Arctic sea ice was at the lowest level in the satellite record for December.

13       94. Arctic sea ice plays an important role in stabilizing the global climate, because it  
 14 reflects back to space much of the solar radiation that the region receives. (In contrast, open  
 15 ocean water absorbs much more heat from the sun, thus amplifying human-induced warming. As  
 16 sea ice melts and is replaced by ocean water during the 24-hour Arctic summer, warming will  
 17 further increase.)

18       95. Scientists have also documented an overall trend of sea-ice thinning and  
 19 replacement of older ice with less resilient, younger ice. The year 2010 also marked a record low  
 20 spring snow cover in the Arctic since satellite observations began in 1966.

21       96. Similarly, there has been a general increase in permafrost (frozen ground)  
 22 temperatures and permafrost melting in Alaska and other parts of the Arctic, particularly in the  
 23 last five years. Scientists working in Siberia have documented substantial methane releases as  
 24 the permafrost melts. Because the Arctic permafrost region contains about twice as much carbon  
 25 as in the atmosphere, scientists believe and are concerned that melting of the permafrost may  
 26 release methane that will further increase global warming to even more dangerous levels.  
 27 Changes in these different aspects of Earth’s climate system over the last century tell a coherent  
 28 story: the impacts we see today are consistent with scientific understanding of how the climate

1 system should respond to GHG increases from human activities and how Earth has responded in  
 2 the past as reflected in such evidence as ice cores that have trapped air from hundreds of  
 3 thousands years ago, tree rings and seabed sediments that show where sea level was thousands  
 4 and even millions of years ago. Collectively, these changes cannot be explained as the product of  
 5 natural climate variability or a tilt in Earth's axis alone. A large human contribution provides the  
 6 best explanation of observed human made climate changes.

7       97. These well-documented and observable impacts from the changes in our climate  
 8 system show us that the current level of atmospheric GHGs (predominately CO<sub>2</sub>) has already  
 9 taken the planet into a danger zone.

10      **5. HUMAN MADE CLIMATE CHANGE HURTS PUBLIC WELFARE AND WILL RESULT IN**  
 11      **UNIMAGINABLE CONSEQUENCES IF OUR GOVERNMENT DOES LITTLE OR NOTHING**

12       98. Earth will continue to warm in reaction to concentrations of CO<sub>2</sub> from past  
 13 emissions as well as future emissions. Warming already in the pipeline is mostly attributable to  
 14 climate mechanisms that slowly heat the climate system in response to atmospheric CO<sub>2</sub>. We are  
 15 already committed to more warming, which is why we need to quickly reduce CO<sub>2</sub> emissions to  
 16 slow the rate of warming and draw down CO<sub>2</sub> concentrations from the atmosphere by protecting  
 17 carbon sinks and reforesting the planet. This lag between GHG increases and climate warming,  
 18 along with the very long lifetime of CO<sub>2</sub> in the atmosphere, demands that emissions reductions  
 19 begin immediately in order to minimize future human-induced warming.

20       99. Our oceans play a significant role in keeping our atmospheric climate in the safe-  
 21 zone. Oceans constantly absorb CO<sub>2</sub> and release it to the atmosphere, maintaining a balance.  
 22 Because we now release so much CO<sub>2</sub>, oceans have absorbed about one-third of the CO<sub>2</sub> emitted  
 23 from human activity over the past two centuries. This capacity has slowed global warming, but at  
 24 a cost: the added CO<sub>2</sub> has changed the chemistry of the oceans, causing the oceans' average  
 25 surface pH (a measurement of hydrogen ions) to drop by an average of .11 units. Although this  
 26 drop may seem relatively small, the pH scale is logarithmic, so that a reduction of only one unit  
 27 means the solution has in fact become ten times more acidic. A drop of .1 pH units means that  
 28 the concentration of hydrogen ions in sea water has gone up by 30 percent in the past two

1       centuries. If CO<sub>2</sub> levels continue to rise to 500 ppm, we could see a further drop of .3 pH units by  
2       2100.

3           100. Ocean acidification harms animals that use calcium to build their shells, as well as  
4       single-celled organisms that are an essential part of the marine food chain. Harm occurs because  
5       the acidified waters affect the structural integrity and survival of shell-building marine organisms  
6       such as corals and shellfish by effectively robbing them of the key chemical (carbonate ion)  
7       needed to build their skeletons. It also adversely impacts some kinds of algae and one-celled  
8       organisms that use calcification processes for survival. Some of these organisms make up  
9       features such as the White Cliffs of Dover. Coral reefs are major habitats for ocean fauna, and  
10      calcifying algae and plankton are key components of the marine food chain. “The availability of  
11      carbonate is also important because it controls the maximum amount of CO<sub>2</sub> that the ocean is able  
12      to absorb.”

13           101. About 55 million years ago, the oceans absorbed a large amount of CO<sub>2</sub>, likely due  
14       to a release of methane from the ocean floor (which eventually was chemically converted to CO<sub>2</sub>  
15       in the atmosphere) that caused Earth’s temperatures to rise several degrees and led to the  
16       extinction of many species worldwide. The absorption of so much CO<sub>2</sub> also led to the death of  
17       calcifying organisms at the seafloor. It took over 100,000 years for the ocean to regain its normal  
18       alkalinity. The current level of CO<sub>2</sub> (which is far lower than it was 55 million years ago) being  
19       taken in by the oceans already decreases the ability of coral and other calcium-based marine life  
20       to produce their skeletons, affecting the growth of coral and thus coral reefs. Other marine life,  
21       such as algae, also exhibit a reduced growing ability. “Many of these organisms are important  
22       components of the marine food web.” Ocean acidification can thus massively disrupt the food  
23       chain, give non-calcium based creatures a competitive advantage, and limit the geographic reach  
24       of calcium based creatures. In experiments, coral reef organisms have not demonstrated an  
25       ability to adapt to decreasing carbonate saturation state. Finally, this disruption to the food web  
26       could substantially alter the biodiversity and productivity of the ocean.

27           102. Another effect of warming of the oceans is the bleaching of corals. Corals contain  
28       tiny algae that provide them with food and that accounts for their color. When the oceans warm,

1 the algae give off a toxin, and the corals, in order to survive the toxin, expel the algae, bleaching  
2 the coral. If the water temperature does not fall enough to permit algae to survive within the coral  
3 without releasing the toxin, the corals will eventually die. There have been several severe  
4 episodes of coral bleaching in recent years. With continued warming, the coral may not be able  
5 to survive.

6 103. Changes in water supply and water quality will also impact agriculture in the  
7 United States. All crops have upper and lower limits beyond which seeds will not germinate.  
8 Additionally, increased heat and associated issues such as increased pests, crop diseases, and  
9 weather extremes (including drought) will impact crop and livestock production and quality. For  
10 example, human made climate change in the nation has produced warmer summers, enabling the  
11 mountain pine beetle to produce two generations of beetles in a summer, where it had previously  
12 only been able to produce one; in Alaska, the spruce beetle is maturing in one year where it had  
13 previously taken two years. The expansion of the forest beetle population has killed millions of  
14 hectares of trees across the United States and Canada and caused millions of dollars in loss from  
15 lost timber and tourism revenue.

16 104. Glacial and ice cap melting is a major cause of global sea level change. When  
17 glaciers and ice caps melt, this melting adds water to the oceans. The other main cause is that as  
18 ocean water warms, it expands and therefore takes up more space; ocean warming “has been  
19 observed in each of the world’s major ocean basins, and has been directly linked to human  
20 influences.”

21 105. Quantifying future sea level rise remains highly uncertain, although there is  
22 overwhelming scientific consensus that the rise per se will continue and will be significant. The  
23 IPCC estimates a 0.6-meter rise in sea level by 2100 under a worst-case scenario that does not  
24 include contributions from the accelerated flow of major ice sheets. Some scientists predict a 2-  
25 meter rise in sea level by 2100 if present trends continue. Today, rising sea levels are submerging  
26 low-lying lands, eroding beaches, converting wetlands to open water, exacerbating coastal  
27 flooding, and increasing the salinity of estuaries and freshwater aquifers. The impacts of rising  
28 sea levels can be seen in many coastal locations across the nation. Along the Florida coast for

1 instance, sea level is rising about 2.5 centimeters (1 inch) every 11-14 years. This seemingly  
2 small rise in ocean levels is contributing to massive erosion, causing many homeowners to  
3 remove beach front property, and causing a decline in the recreational value of beaches. The  
4 Florida Everglades are also being impacted; as sea levels rise, salt water advances inland and kills  
5 many Everglade plant species, which also destroys the habitat value of swamplands for many  
6 species. Other states such as Maryland and Louisiana are also experiencing wetland loss due to  
7 rising sea levels. Scientists have predicted that wetlands in the Mid-Atlantic region of the United  
8 States cannot withstand a 7 millimeter per year rise in sea levels.

9       106. Human-caused fossil fuel burning and the resulting climate change are already  
10 contributing to an increase in asthma, cancer, cardiovascular disease and stroke, heat-related  
11 morbidity and mortality, foodborne diseases, and neurological diseases and disorders.

12       107. As the 2010 Russian summer heat wave graphically demonstrated, excessive and  
13 sustained heat destroys crops, triggers wildfires, exacerbates air pollution, and causes increased  
14 illness and death. Similar impacts are occurring across the United States: the number and  
15 frequency of forest fires and insect outbreaks are increasing in the interior West, the Southwest,  
16 and Alaska. Precipitation, streamflow, and stream temperatures are increasing in most of the  
17 continental United States. The western United States is experiencing reduced snowpack and  
18 earlier peaks in spring runoff. The growth of many crops and weeds is being stimulated.  
19 Migration of plant and animal species is changing the composition and structure of arid, polar,  
20 aquatic, coastal, and other ecosystems. Wildfires in the western United States have quadrupled in  
21 recent years, a result of hotter temperatures and earlier snowmelt that contributes to dryer soils  
22 and vegetation.

23       108. Similarly, human made climate change is already causing and will continue to  
24 cause more frequent extreme and costly weather events such as hurricanes. The annual number  
25 of major tropical storms and hurricanes has increased over the past 100 years in North America,  
26 coinciding with increasing temperatures in the Atlantic sea surface.

27       109. Human-induced climate change also raises national security concerns, as climate  
28 change will add to tensions even in stable regions of the world. Our nation may experience an

1 additional need to accept immigrant and refugee populations as droughts increase and food  
2 production declines in other countries. Increased extreme weather events such as hurricanes will  
3 also present an increased strain on foreign aid and call for military forces. For instance, by 2025,  
4 40 percent of the world's population will be living in countries experiencing significant water  
5 shortages, while sea-level rise could cause displacement of tens or even hundreds of millions of  
6 people.

7 110. Paleoclimate (Earth history) data provide sobering evidence that major human  
8 made climate change can occur in decades, and the consequences would be much more severe,  
9 and even disastrous, if a 2°C (3.6°F) change above pre-industrial levels occurs over decades  
10 rather than hundreds of years.

11 111. There are at least three reasons the present, human-induced global warming is  
12 particularly significant.

13 112. *First*, past global warming/cooling of a similar magnitude occurred before human  
14 civilization.

15 113. *Second*, global warming is happening far more rapidly than in many past times,  
16 giving both humans and other forms of life only short (and therefore infeasible) time to adapt to  
17 the changes. Human civilization, and the crops and foods on which it depends, have developed  
18 within a very narrow set of climatic conditions. With human population so large, with  
19 civilization so complex, centered around coastal cities and dependent on water supplies fed by  
20 distant ice and snow melt, and with the great disparities in wealth between and within countries  
21 and regions, we will find it nearly impossible to adapt to all of the human made climate change  
22 impacts in the quick time-frame in which they will occur.

23 114. *Third*, and perhaps most important, the climate change we are now experiencing is  
24 caused largely by human activity. This means that unlike with respect to past climate change  
25 events, by changing our activities humans can mitigate or even reverse this warming before it  
26 causes catastrophic and irreversible effects. Stopping, or at least greatly curtailing, the activities  
27 that discharge greenhouse gases into the air, primarily burning of fossil fuels and deforestation,  
28 and encouraging activities such as reforestation that remove CO<sub>2</sub> from the atmosphere, can

1 greatly reduce and even end global warming and its accompanying consequences within the  
 2 lifetimes of today's children.

3       **6. REMEDYING PLAINTIFFS' INJURIES BY RESTORING THE ATMOSPHERE AND EARTH'S**  
 4       **NATURAL SYSTEMS**

5       115. Our climate system continues to be harmed at an alarming rate, all to the detriment  
 6 of Earth as we know it. The atmosphere already contains excessive concentrations of CO<sub>2</sub>.  
 7 Continued greenhouse gas pollution by any nation on Earth, including the United States, will  
 8 continue to waste this commonly held asset.

9       116. To protect Earth's climate for future generations, we must restore Earth's energy  
 10 balance. The best available science shows if the planet once again sends as much energy into  
 11 space as it absorbs from the sun, this will restore the planet's climate equilibrium. Scientists have  
 12 accurately calculated how Earth's energy balance will change if we reduce long-lived greenhouse  
 13 gases such as carbon dioxide. Humans are currently causing a planetary energy imbalance of  
 14 approximately one-half watt per square meter. We would need to reduce atmospheric  
 15 concentrations of carbon dioxide by 35 to 40 ppm to increase Earth's heat radiation to space and  
 16 return its energy balance, if other long-lived gases stay the same as today. That reduction would  
 17 make atmospheric carbon dioxide amount to about 350 ppm.

18       117. The best available science also shows that to protect Earth's natural systems,  
 19 average global peak surface heating must not exceed 1° C this century. To prevent global heating  
 20 greater than 1° C, concentrations of atmospheric CO<sub>2</sub> must decline to less than 350 ppm within  
 21 this century. However, today's atmospheric CO<sub>2</sub> levels exceed 389 ppm and are rising.

22       118. The best available science also concludes that to protect Earth's oceans -- an  
 23 essential harbor of countless life forms and absorber of GHGs, or "GHG sink" -- atmospheric  
 24 CO<sub>2</sub> levels must be reduced to 350 ppm or lower.

25       119. Atmospheric CO<sub>2</sub> levels are currently on a path to reach over 400 ppm by 2020.  
 26 Absent immediate action to reduce CO<sub>2</sub> emissions, atmospheric CO<sub>2</sub> could reach levels as high as  
 27 about 1000 ppm and a temperature increase of up to 5° F by 2100. Life as we know it is  
 28 unsustainable at these levels.

1       120. Even if CO<sub>2</sub> emissions were instantaneously halted – i.e., if fossil fuel emissions  
2 and deforestation were abruptly terminated in 2011 -- it would still take until around 2060 before  
3 CO<sub>2</sub> levels would decline to below 350 ppm. If global fossil fuel CO<sub>2</sub> emissions continue to grow  
4 at the rate of the past decade (about two percent per year) up until the time that emissions are  
5 terminated, and termination does not occur until 2030, when CO<sub>2</sub> levels have reached over 450  
6 ppm, CO<sub>2</sub> would not return to 350 ppm until about 2250. With a 40-year delay (to 2040), CO<sub>2</sub>  
7 levels would surpass 500 ppm, and would not return to 350 ppm until after year 3000.

8       121. Even restoring the planet's energy balance will not immediately stop sea level rise  
9 that is in the pipeline, but it would help keep that rise relatively under control. It would also  
10 prevent human made climate change from becoming a huge force for species extinction and  
11 ecosystem collapse. Up to 30 per cent of the millions of species on our planet could go extinct  
12 following just a few tenths of a degree warming above present.

13       122. Defendants have the present ability to curtail the environmental harms detailed  
14 above. Atmospheric CO<sub>2</sub> will decrease if people stop or greatly reduce the burning of fossil fuels.  
15 CO<sub>2</sub> emitted into the atmosphere by burning fossil fuels is slowly distributed among other surface  
16 reservoirs, especially the ocean. Carbon cycle models can simulate how rapidly the fossil fuel  
17 CO<sub>2</sub> injection is removed from the atmosphere and distributed among the other carbon reservoirs  
18 such as the oceans and forests. Although most of the CO<sub>2</sub> is removed by natural processes, after  
19 500 years almost one-fifth of the fossil fuel increment to atmospheric CO<sub>2</sub> will still be in the air.  
20 Because of this persistence, it is imperative to reduce CO<sub>2</sub> emissions immediately, with  
21 substantial reductions at the earliest possible time. Any more delay risks irreversible and  
22 unacceptable consequences for generations to come.

23       123. Fossil fuel emissions must decrease rapidly if atmospheric CO<sub>2</sub> is to be returned to  
24 a safe level in this century. Improved forestry and agricultural practices can provide a net  
25 drawdown of atmospheric CO<sub>2</sub>, primarily via reforestation of degraded lands that are of little or  
26 no value for agricultural purposes, returning us to 350 ppm somewhat sooner. However, the  
27 potential of such measures is limited. Drawdown of atmospheric CO<sub>2</sub> via reforestation is  
28

1 essential for the purpose of getting atmospheric CO<sub>2</sub> down to a safe level. However, reforestation  
2 alone will not be sufficient, and must be accompanied by a phase down of fossil fuel emissions.

3 124. The failure to act promptly to reduce CO<sub>2</sub> emissions will not only increase the  
4 costs of future reductions, it will have irreversible adverse effects on Plaintiffs and all future  
5 generations, as detailed above.

6 125. To have the best chance of reducing the concentration of CO<sub>2</sub> in the atmosphere to  
7 350 ppm by the end of the century and avoid heating over 1 degree Celsius over pre-industrial  
8 temperatures, the best available science concludes that atmospheric carbon dioxide emissions  
9 need to peak in 2012 and then begin to decline at a global average of 6% per year through 2050  
10 and 5% per year through 2100. In addition, carbon sequestering forests and soils must be  
11 preserved and replanted to sequester an additional 100 gigatons of carbon through the end of the  
12 century. However, if CO<sub>2</sub> emissions continue to rise until 2020, CO<sub>2</sub> emissions must decline by  
13 12% per year to reach 350 ppm by the end of the century. The sooner Defendants take the  
14 necessary action to draw down the excessive CO<sub>2</sub> from the atmosphere and to fulfill their Public  
15 Trust responsibilities, the easier these reductions will be.

16 126. According to the principle of common but differentiated responsibilities of nations,  
17 the United States bears a significant share of carbon reductions. To prevent the environmental,  
18 economic, societal, health, and aesthetic injuries detailed herein, the United States must reduce its  
19 emissions by the greatest extent feasible and at least the global average of 6% per year.

20 127. Even if the United States eliminated all of its GHG emissions, it would not be able  
21 to reduce its fair share of GHGs resulting from its historic emissions. In order to take on its fair  
22 share of emissions reductions, the United States would also need to help other sovereign nations,  
23 with limited economic and technological resources, to reduce their GHG emissions and protect  
24 and restore their carbon sequestering forests.

25 128. A zero-CO<sub>2</sub> U.S. energy system can be achieved within the next thirty to fifty  
26 years without acquiring carbon credits from other countries. In other words, actual physical  
27 emissions of CO<sub>2</sub> from fossil fuels can be eliminated with technologies that are now available or  
28 reasonably foreseeable. This can be done at reasonable cost by eliminating fossil fuel subsidies

1 and creating annual and long-term CO<sub>2</sub> reduction targets. Net U.S. oil imports can be eliminated  
2 in about 25 years, possibly less. The result will also include large ancillary health benefits from  
3 the significant reduction of most regional and local air pollution, such as high ozone and  
4 particulate levels in cities, which is mainly due to fossil fuel combustion.

5       129. The approaches to transition to a renewable energy system and to phase out fossil  
6 fuels by about 2050 include: A single national cap on fossil fuel use that declines to zero by  
7 2050 or a gradually rising carbon tax with revenues used to promote a zero-CO<sub>2</sub> emissions  
8 energy system and to mitigate adverse income-distribution effects; increasingly stringent  
9 efficiency standards for buildings, appliances, and motor vehicles; elimination of subsidies for  
10 fossil fuels, nuclear energy, and biofuels from food crops coupled with investment in a vigorous  
11 and diverse research, development and demonstration program (including smart grid and storage  
12 technologies, electrification of transportation, stationary fuel cells for combined heat and power,  
13 biofuels from aquatic weeds like microalgae, use of aquatic weeds like microalgae in integrated  
14 gasification combined cycle plants, and use of hydrogen-fueled passenger aircraft); banning new  
15 coal-fired power plants; adoption of a policy that would aim to have essentially carbon-free state,  
16 local, and federal governments, including almost all of their buildings and vehicles by 2030; and  
17 adoption of a gradually increasing renewable portfolio standard for electricity until it reaches 100  
18 percent by about 2050.

## **VI. PLAINTIFFS' CLAIMS FOR RELIEF**

### **CLAIM I: VIOLATIONS OF THE PUBLIC TRUST DOCTRINE**

21 130. Plaintiffs hereby reallege and incorporate all of the preceding paragraphs.

131. The United States, as a sovereign nation, has a duty as trustee to protect natural  
resources under the Public Trust Doctrine. The Public Trust Doctrine is an attribute of  
sovereignty that cannot be abrogated. As long as the sovereign exists, so do the sovereign's  
duties under the Public Trust Doctrine.

26        132. Defendants, and each of them, as agencies and officers of the federal government,  
27 are subject to fiduciary duties under the Public Trust Doctrine as trustee of the natural resources  
28 of the United States, including our atmosphere in its ambient or interstate aspects.

1       133. Defendants, and each of them, are trustees of Public Trust resources including the  
2 atmosphere pursuant to the Due Process Clauses of the 5<sup>th</sup> and 14<sup>th</sup> Amendments to the  
3 Constitution of the United States.

4       134. Defendants, and each of them, are trustees of the Public Trust resources including  
5 the atmosphere pursuant to Equal Protection principles of the 14<sup>th</sup> Amendment to the Constitution  
6 of the United States.

7       135. Defendants, and each of them, are trustees of Public Trust resources including the  
8 atmosphere pursuant to the Commerce Clause of the Constitution of the United States.

9       136. Defendants, and each of them, are trustees of Public Trust resources pursuant to  
10 statutory provisions committing to the people of the United States that the United States  
11 government will hold natural resources in trust for the benefit of the people.

12       137. The United States government is a co-tenant sovereign trustee of the atmosphere  
13 and shares a duty with other co-tenant sovereigns, including Tribal Nations, to protect the  
14 atmosphere as the trust asset and prevent its waste or harm for the benefit of the people, including  
15 Plaintiffs and future generations of citizens.

16       138. As a co-tenant sovereign trustee, the federal government has an interest  
17 independent of and behind the titles of its citizens, in all the earth and air within its domain,  
18 particularly as necessary to maintain its affirmative and ongoing duty to protect Public Trust  
19 assets.

20       139. Defendants, and each of them, have allowed, facilitated, and contributed to the  
21 waste of trust assets and otherwise failed to preserve and protect these assets, including the  
22 atmosphere, by allowing it to become polluted with high levels of human-caused CO<sub>2</sub>.

23       140. Defendants, and each of them, have wasted and failed to preserve and protect the  
24 atmosphere Public Trust asset, and have caused and will continue to cause imminent injuries as  
25 described above, from increased greenhouse gas emissions, global heating, and adverse impacts  
26 to natural and other resources.

27       141. Defendants, and each of them, have injured Plaintiffs by failing to protect the  
28 atmosphere as a Public Trust asset.

142. By allowing or facilitating the waste of the atmosphere as a commonly shared Public Trust asset, Defendants, and each of them, have caused injuries that are irreparable and monetary damages alone are inadequate to remedy these injuries.

143. The failure by Defendants, and each of them, to reduce United States' carbon emissions by the amount necessary to prevent global heating more than 1.5 C over pre-industrial levels and lower atmospheric carbon concentrations to below 350 ppm, will continue to contribute to global warming, ocean acidification, and the other harms enumerated above, to the detriment of Plaintiffs, and their environment, health, safety, and welfare.

144. The failure of Defendants, and each of them, to preserve and protect carbon sinks, such as forests, tar sands, permafrost and ocean ecosystems, has contributed and will continue to contribute to global warming and ocean acidification to the detriment of Plaintiffs and their environment, health, safety, and welfare.

145. Co-tenant sovereign trustees each have an independent duty to prevent waste and recover the trust asset. Defendants, and each of them, are required by the Public Trust to take all actions necessary to reduce the United States government's fair and equitable share of carbon emissions. Due to the actual size and apportionment of United States government's carbon emissions, if the United States does not take immediate action to reduce its fair share of carbon emissions, the climate catastrophes are inevitable.

146. The atmosphere must be protected as central to the survival and well-being of Plaintiffs and others similarly situated.

147. The check and balance of judicial review provides a level of protection against improvident disposition or waste of an irreplaceable trust asset.

## **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs, and each of them, respectfully request that the court:

**1. Declare that:**

a. The atmosphere is a Public Trust resource.

1                   b.         The United States government has a fiduciary duty, as a trustee, to preserve  
 2 and protect the atmosphere as a commonly shared Public Trust asset, and to refrain from taking  
 3 actions that waste or damage this asset;

4                   c.         The fiduciary obligation is enforceable by Plaintiffs, and each of them, as  
 5 citizen beneficiaries of the Public Trust who represent present and future generations;

6                   d.         The fiduciary obligation is dictated by the best available science on  
 7 protecting a sustainable atmosphere and climate for present and future generations.

8                   e.         Defendants, and each of them, have violated their fiduciary duties as  
 9 trustees of the atmosphere by contributing to and allowing unsafe amounts of greenhouse gas  
 10 emissions into the atmosphere, which has led to human made global warming, ocean  
 11 acidification, and all of the ramifications associated with the alteration of the atmosphere and  
 12 Earth's natural systems;

13                  f.         Defendants, and each of them, bear liability for reducing greenhouse gas  
 14 pollution into the atmosphere and altering the atmosphere and Earth's natural systems;

15                  g.         Rapid reduction of greenhouse gas emissions is required to preserve  
 16 Earth's atmosphere and natural systems;

17                  h.         Atmospheric concentrations of carbon dioxide higher than 350ppm, if  
 18 sustained beyond this century, are likely to cause global warming substantially greater than 1°C  
 19 above preindustrial temperatures, ocean acidification, massive deglaciation, and disintegration of  
 20 ice sheets, in addition to widespread harm to Earth's natural systems;

21                  i.         The United States government's duty as fiduciary is to prevent waste of  
 22 and to restore the trust asset by taking immediate measures consistent with the goal of restoring  
 23 global atmospheric carbon dioxide levels to less than 350 ppm this century;

24                  j.         In order to draw down carbon dioxide levels to achieve the scientific  
 25 prescription for meeting the fiduciary duty of preserving and protecting the atmosphere,  
 26 Defendants, and each of them, as trustees must collaboratively take action to: (i) enable global  
 27 fossil fuel CO<sub>2</sub> emissions to peak by 2012 and reduce global fossil fuel CO<sub>2</sub> emissions by at least  
 28 6% per year through at least 2050; and (ii) cease deforestation and reforest degraded forest lands

1 and improve soil conditions on agricultural lands that will sequester an additional 100 gigatons of  
2 carbon this century; and

3                   k. To support effective global collaboration to preserve and protect the  
4 atmosphere and Earth's natural systems, the United States government has an obligation, as  
5 agreed under the UNFCCC, to take action pursuant to its common but differentiated  
6 responsibility and respective capabilities. Based on this principle, the United States government  
7 must both reduce its own emissions and provide financial and technological assistance to  
8 developing countries to support them in reducing their own emissions, at an aggregate rate  
9 consistent with a rate of global emissions decline of 6% per year.

10                  2. Issue an injunction:

11                   a. Requiring Defendants, and each of them, take action consistent with the  
12 United States government's equitable share of the global effort, corresponding to its share of the  
13 responsibility for causing an increase in greenhouse gas concentrations and its financial and  
14 technological capability to reduce global emissions, and thereby enable global CO<sub>2</sub> emissions to  
15 peak by December 2012 and decline by at least 6% a year thereafter;

16                   b. Requiring that Defendants, and each of them, take all necessary actions to  
17 reduce CO<sub>2</sub> emissions in the United States by at least 6% per year beginning in 2013;

18                   c. Requiring that by December 31, 2011, Defendants, and each of them,  
19 prepare an annual GHG accounting or inventory of all GHG emissions originated by the United  
20 States and its citizens and corporations and submit it for approval by this Court;

21                   d. Requiring that by December 31, 2011, Defendants, and each of them,  
22 prepare an annual carbon budget consistent with the reductions in 2(a) and (b) above and submit  
23 it for approval by this Court; and

24                   e. Requiring that by December 31, 2011, Defendants, and each of them,  
25 prepare a climate recovery plan, consistent with the best available science and calibrated to  
26 achieve the requirements imposed by 2(a) and (b) and submit it to this Court for approval.

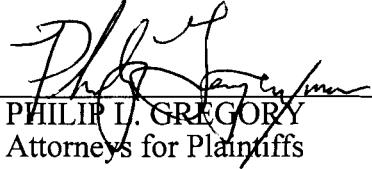
27                  3. Grant such other attorneys' fees, expert fees, costs of suit, and interest as allowed  
28 by law.

- 1       4.     Grant such other and further relief as the Court deems just and proper.  
2       5.     Retain jurisdiction over this action for purposes of enforcing and effectuating this  
3 Court's order.

4                      Dated: May 04 , 2011

5                      **COTCHETT, PITRE & MCCARTHY, LLP**

6                      By:

7                        
8                      PHILIP L. GREGORY  
9                      Attorneys for Plaintiffs

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